REMARKS

Claims 1, 2, 7, 8, 13-23, 28-31, and 33-40 are currently pending in the application. By this amendment claims 1, 31, and 33 are amended and claims 34-40 are added for the Examiner's consideration. Claims 4-6 and 9-12 are canceled without prejudice or disclaimer. Applicants expressly reserve the right to file the subject matter of claims 4-6 and 9-12 and other original claims in one or more continuing applications. The amendments and new claims do not add new matter to the application and are fully supported by the original disclosure. For example, support for the amendments and new claims is provided in the claims as originally filed, at Figures 2-11, and at paragraphs [0006], [0041], and [0049], of Applicants' published application (U.S. Pub. No. 2007/0028547). Reconsideration of the rejected claims in view of the above amendments and the following remarks is respectfully requested.

Claims Not Rejected Should Be Allowed

The pending Office Action does not set forth a rejection of claim 31. Therefore, claim 31 should be indicated as allowable. Applicants have re-written claim 31 in independent form in this amendment. As such, the scope of claim 31 has not been changed by this amendment. Should the Examiner decline to indicate claim 31 as allowable and instead set forth a new rejection of claim 31 in the next Office Action, Applicants submit that the next action then cannot be made final since the new ground of rejection of claim 31 would not be necessitated by an amendment to claim 31.

35 U.S.C. §102 Rejection

Claims 1, 2, 5, 7, 8, 17, 20, 28, 30, and 33 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Pat. No. 3,627,362 ("Brennenman"). This rejection is respectfully traversed.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). See, MPEP §2131. Applicants submit that the applied art does not show each and every feature of the claimed invention.

Independent Claim 1

The invention relates to a device for connecting and locking building boards comprising a top side and a bottom side, especially floor panels having a core made of wood material and provided with a groove on at least two opposite side edges, further comprising an insert intended for locking purposes, which insert can be inserted into the groove of one of the side edges, the boards being connected by substantially horizontal displacement. In particular, independent claim 1 recites, in pertinent part:

> … wherein at least one of the one resilient lip and the another resilient lip compresses toward a center of the insert and then springs back out from the center of the insert when the boards are connected by the substantially horizontal displacement,
>
> the insert comprises:
>
> a first upward facing surface;
>
> a second upward facing surface connected to, and vertically offset from, the first upward facing surface by a first step;
>
> a first downward facing surface;
>
> a second downward facing surface connected to, and vertically offset from, the first downward facing surface by a second step;
>
> the first side edge comprises the second upward facing surface and the first downward facing surface;
>
> the second side edge comprises the first upward facing surface and the second downward facing surface;
>
> the one resilient lip extends upward from the second upward facing surface; and
>
> the another resilient lip extends downward from the second downward facing surface,
>
> wherein each resilient lip has a tip running obliquely to the top side and bottom side, which tip, for locking, cooperates with an obliquely running edge,
>
> the insert is plastic,
>
> the insert has in its core at least one cavity at a center of the insert,
>
> the angle of inclination between the obliquely running edge measures between 90° and 135°,
>
> the thickness of the insert measures 1.5-5 mm,
>
> the depth of penetration of the insert into the groove is 3-8 mm, and
>
> the flexural modulus of the plastic is 1000-7000 N/mm^2.

Claim 1 has been amended to incorporate the features of claims 4-6 and 9-12, and to further clarify that the cavity at a center of the insert. The Examiner acknowledges at pages 5, 6, and 8 of the Office Action that Brenneman does not disclose the features of claims 4, 6, and 9-

12. Therefore, Brenneman does not disclose all of the features of claim 1 and does not anticipate the claimed invention. Accordingly, Applicants respectfully request that the §102 rejection of claim 1 be withdrawn.

The Examiner has rejected claims 4, 6 and 9-12 under 35 U.S.C. §103(a) as being obvious in view of Brenneman alone (i.e., claims 4 and 9-12) and as being obvious in view of Brenneman and U.S. Pat. No. 2,863,185 ("Riedi") (i.e., claim 6). Applicants take this opportunity to explain why claim 1, as now presented, would not have been obvious to one of ordinary skill in the art at the time the invention was made.

Claim 1 recites *the insert has in its core at least one cavity at a center of the insert*. The Examiner acknowledges, and Applicants agree, that Brenneman does not disclose this feature. The Examiner asserts that Riedi discloses an insert comprising a cavity, and that it would have been obvious to modify Brenneman to include such a cavity. Notwithstanding, Riedi does not disclose that the cavity is at a center of the insert. Instead, Riedi clearly shows that the cavities are offset from the center of the insert. Therefore, neither Brenneman nor Riedi teaches *the insert has in its core at least one cavity at a center of the insert*, as recited in claim 1.

Claim 1 additionally recites *the insert is plastic*. The Examiner asserts that Brenneman disclose the insert is plastic at line 70 of col. 1 and lines 55-59 of col. 3. However, these passages of Brenneman are describing FIG. 3, not FIGS. 5 and 10 which are relied on by the Examiner in rejecting claim 1. In the rejection of claim 1, the Examiner identifies elements of Brenneman's devices in FIGS. 5 and 10 as reading on the insert recited in claim 1. With respect to FIG. 10, Brenneman explicitly states that the spline member 105 is formed from steel or other resilient material which can be formed by rolling to have an S-shaped configuration (col. 5, lines 5-9). Brenneman does not disclose that the spline member in FIGS. 5 or 10 is plastic.

At the passages identified by the Examiner as teaching a plastic insert, Brenneman is describing FIG. 3, which is a different embodiment than FIGS. 5 and 10. Brenneman does not disclose or suggest that the features of the embodiment of FIG. 3 can be used with the embodiments of FIGS. 5 and 10. Moreover, one of ordinary skill in the art would not have been prompted to make the spline member 105 of FIG. 10 of plastic because plastic generally cannot be formed by rolling to have an S-shaped configuration, as required by Brenneman in the embodiment of FIG. 10.

Riedi also discloses that the fastener 10 is made of metal (col. 2, lines 7-11). Therefore, neither Brenneman nor Riedi teaches an insert having the other features of claim 1, wherein the insert is plastic.

Claim 1 additionally recites: *the angle of inclination between the obliquely running edge measures between 90° and 135°, the thickness of the insert measures 1.5-5 mm, the depth of penetration of the insert into the groove is 3-8 mm, and the flexural modulus of the plastic is 1000-7000 N/mm^2*. The Examiner acknowledges that Brenneman does not disclose these features. Applicants agree that Brenneman does not disclose any one of these features, much less all of these features. In fact, there is no hint in the applied prior art documents of a structure having these respective parameters. The Examiner asserts, however, that it would have been a matter of obvious design choice to modify Brenneman to arrive at these features. Applicants respectfully disagree.

Applicants submit that the Examiner's assertion of "design choice" is insufficient to establish a *prima facie* case of obviousness because it is not factually supported and because it is conclusory. It is well established that the examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness (MPEP §2142). Rejections based on §103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The Office may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis for the rejection. *See, In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 177 (CCPA 1967), *cert. denied*, 389 U.S. 1057 (1968). Moreover, as mandated by the Supreme Court and subsequently adopted in MPEP 2142, conclusory rejections are improper:

> The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See also *KSR*, 550 U.S. at ___ , 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval).

In this rejection, the Examiner does not provide any basis in fact or articulated reasoning to support the conclusion that it would have been obvious to modify Brenneman's spline member 105 to have: an angle of inclination between the obliquely running edge measuring between 90° and 135°; a thickness of the insert measuring 1.5-5 mm; a depth of penetration of the insert into the groove being 3-8 mm; and a flexural modulus of the plastic being 1000-7000 N/mm^2. The Examiner provides no explanation of what would have prompted one of ordinary skill in the art to modify Brenneman in this manner, or that one of ordinary skill in the art would have recognized that the results of such modification were predictable. Instead, the Examiner merely concludes that it would have been obvious through "design choice" to modify the spline member of Brenneman to arrive at the claimed invention. This type of factually unsupported and conclusory rejection is clearly improper in light of *KSR*.

For all of the above-discussed reasons, Applicants submit that the applied art does not teach the combination of features recited in claim 1. Therefore, the applied art does not render claim 1 unpatentable. Claims 2, 7, 8, 17, 20, 28, 30 depend from claim 1 and are allowable at least for the same reasons as claim 1. Claim 5 is canceled, such that the rejection of claim 5 is moot.

Accordingly, Applicants respectfully request that the rejection of claims 1, 2, 5, 7, 8, 17, 20, 28, and 30 be withdrawn.

Independent Claim 33

Independent claim 33 recites:

> 33. A device for connecting and locking first and second building boards, the first and second building boards comprising respective grooves into which the device is configured to be inserted for the connecting and locking, the first and second building boards being connected by substantially horizontal displacement one toward the other, the device comprising:
>
> a first upward facing surface;
>
> a second upward facing surface connected to, and vertically offset from, the first upward facing surface by a first step comprising a first vertical wall extending from the first upward facing surface to the second upward facing surface;
>
> a first downward facing surface;
>
> a second downward facing surface connected to, and vertically offset from, the first downward facing surface by a second step comprising

a second vertical wall extending from the first downward facing surface to the second downward facing surface;

a resilient lip extending upward from the second upward facing surface; and

another resilient lip extending downward from the second downward facing surface,

wherein at least one of the resilient lip and the another resilient lip compresses toward a center of the device and then springs back out from the center of the device when the boards are connected by the substantially horizontal displacement; and

horizontal locking of the boards is effectuated by respective tips of the resilient lip and the another resilient lip resting against respective edges of the respective grooves.

The Examiner asserts that Brenneman discloses the features of claim 33 at FIGS. 5 and 10. Notwithstanding, Applicants submit that Brenneman does not disclose an insert as defined in claim 3, wherein the first step comprises *a first vertical wall extending from the first upward facing surface to the second upward facing surface* and the second step comprises *a second vertical wall extending from the first downward facing surface to the second downward facing surface*.

Brenneman's FIGS. 5 and 10 are reproduced below. The spline members include a first upward facing surface, a second upward facing surface, a first downward facing surface, and a second downward facing surface.

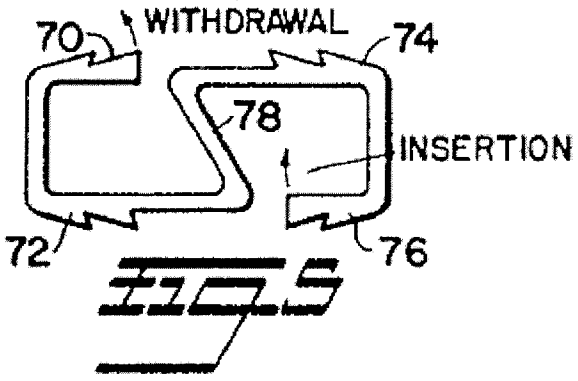


FIG. 5

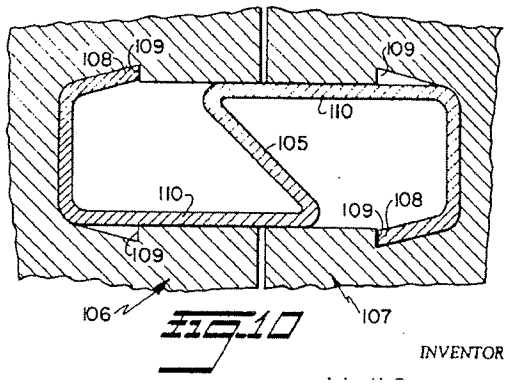
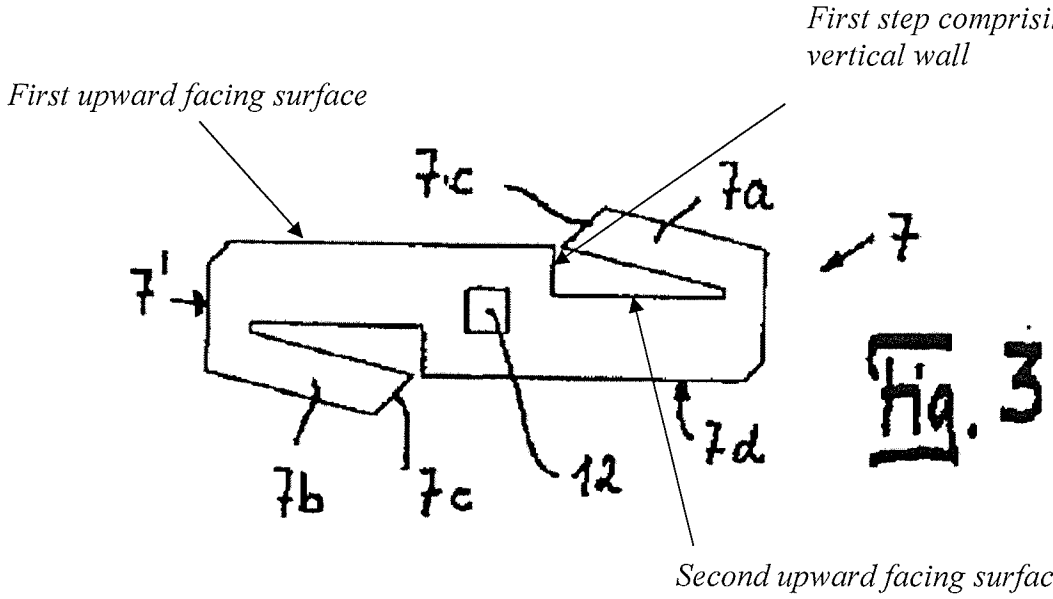


FIG. 10

However, Brenneman's spline members do not include *a first step comprising a first vertical wall extending from the first upward facing surface to the second upward facing surface*, and *a second step comprising a second vertical wall extending from the first downward facing surface to the second downward facing surface*, as recited in claim 33. There are no vertical

walls between the respective upward facing surfaces of Brenneman's spline member 105. Instead, there are only angled and curved walls. Moreover, even assuming arguendo that a small portion of Brenneman's spline member between the respective upward facing surfaces could be construed as being a vertical wall, this small portion would not extend from Brenneman's first upward facing surface to the second upward facing surface.

In contrast to Brenneman, in exemplary embodiments of the claimed invention, there is a substantially vertical wall that extends from the first upward facing surface to the second upward facing surface. This is depicted in Applicants' FIG. 3, reproduced with annotations below.



Brenneman does not disclose a vertical wall extending between respective first and second upward facing surfaces. Brenneman also does not disclose a vertical wall extending between respective first and second downward facing surfaces. Therefore, Brenneman does not disclose *a first step comprising a first vertical wall extending from the first upward facing surface to the second upward facing surface*, and *a second step comprising a second vertical wall extending from the first downward facing surface to the second downward facing surface*, as recited in claim 33. Therefore, Brenneman does not disclose all of the features of claim 33, and does not anticipate the claimed invention.

Accordingly, Applicants respectfully request that the §102 rejection of claim 33 be withdrawn.

35 U.S.C. §103 Rejection

Claims 4, 9-12, and 14-16 are rejected under 35 U.S.C. §103(a) for being unpatentable over Brenneman. Applicants note that claims 18, 19, and 21-23 also appear to be rejected under §103(a) in view of Brenneman, and this is assumed for this response. Clarification is requested. Claim 6 is rejected under 35 U.S.C. §103(a) for being unpatentable over Brenneman in view of U.S. Pat. No. 2,863,185 ("Riedi"). Claims 13 and 24 are rejected under 35 U.S.C. §103(a) for being unpatentable over Brenneman in view of U.S. Pat. No. 6,763,643 ("Martensson"). Claim 29 is rejected under 35 U.S.C. §103(a) for being unpatentable over Brenneman in view of Riedi and Martensson. These rejections are respectfully traversed.

Claims 4, 6, and 9-12 are canceled, such that the rejection of these claims is moot. The remaining dependent claims depend from independent claim 1 and are allowable at least for the same reasons as claim 1. Accordingly, Applicants respectfully request that the §103 rejections of claim 4, 6, 9-16, 18, 19, 21-24, and 29 be withdrawn.

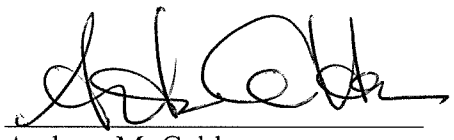
New Claims

Claims 34-40 are added by this amendment and is believed to be distinguishable from the applied art at least for the following reasons. Claims 34-40 depend from independent claims 1, 31, and 33, respectively, and are distinguishable from the applied art for at least the same reasons as the respective base claims. Moreover, claims 34-40 recite additional features that are not taught by the applied art.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants submit that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicants hereby make a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2478.

Respectfully submitted,
Thomas GRAFENAUER



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